

We claim:

1. A polymeric matrix for delivery of a therapeutic or prophylactic agent, wherein the matrix is formed of a biocompatible polymer having incorporated therein an therapeutic or prophylactic agent and an effective amount of a hydrophobic or amphiphilic compound to modify the diffusion of water into the matrix and the release of the therapeutic or prophylactic agent from the matrix.
2. The matrix of claim 1 wherein the matrix is in the form of microparticles.
3. The matrix of claim 1 wherein the hydrophobic or amphiphilic compound is incorporated into the matrix at a ratio of between 0.01 and 60 by weight of hydrophobic compound to weight of polymer.
4. The matrix of claim 3 wherein the hydrophobic or amphiphilic compound is a lipid incorporated into the matrix at a ratio of between 0.01 and 30 (weight lipid/weight matrix material).
5. The matrix of claim 4 wherein the lipid is selected from the group consisting of fatty acids and derivatives, mono-, di and triglycerides, phospholipids, sphingolipids, cholesterol and steroid derivatives, oils, vitamins and terpenes.
6. The matrix of claim 5 wherein the lipid is a phospholipid selected from the group consisting of phosphatidic acids, phosphatidyl cholines with both saturated and unsaturated lipids, phosphatidyl ethanolamines, phosphatidylglycerols, phosphatidylserines, phosphatidylinositols, lysophosphatidyl derivatives, cardiolipin, and β -acyl- γ -alkyl phospholipids.
7. The matrix of claim 6 wherein the phospholipid is selected from the group consisting of dioleoylphosphatidylcholine, dimyristoylphosphatidylcholine, dipentadecanoylphosphatidylcholine, dilauroylphosphatidylcholine, dipalmitoylphosphatidylcholine, distearoylphosphatidylcholine, diarachidoylphosphatidylcholine, dibehenoylphosphatidylcholine, ditricosanoylphosphatidylcholine,

dilignoceroylphatidylcholine; and phosphatidylethanolamines.

8. The matrix of claim 1 wherein the agent is a therapeutic agent.
9. The matrix of claim 1 wherein the matrix is formed of a bioadhesive polymer.
10. The matrix of claim 1 wherein the matrix is formed of a polymer selected from the group consisting of poly(hydroxy acids), polyanhydrides, polyorthoesters, polyamides, polycarbonates, polyalkylenes, polyalkylene glycols, polyalkylene oxides, polyalkylene terephthalates, polyvinyl alcohols, polyvinyl ethers, polyvinyl esters, polyvinyl halides, polyvinylpyrrolidone, polysiloxanes, poly(vinyl alcohols), poly(vinyl acetate), polystyrene, polyurethanes and co-polymers thereof, synthetic celluloses, polyacrylic acids, poly(butyric acid), poly(valeric acid), and poly(lactide-co-caprolactone), ethylene vinyl acetate, copolymers and blends thereof.
11. The matrix of claim 1 wherein the matrix is formed of a protein or polysaccharide.
12. The matrix of claim 1 wherein the matrix is in a pharmaceutically acceptable carrier for topical application or application to a mucosal surface.
13. The matrix of claim 1 wherein the matrix is in a pharmaceutically acceptable carrier for injection.
14. The matrix of claim 1 wherein the matrix is formulated for administration rectally or vaginally.
15. The matrix of claim 2 wherein the microparticles are formulated for pulmonary administration.
16. A method for making the matrix of claims 1-15, wherein the hydrophobic compound is distributed into the polymer in an amount effective to modify the rate of release of the therapeutic or prophylactic agent..
17. The method of claim 16 wherein the matrix is formed by melting the polymer with the hydrophobic or amphiphilic compound.
18. The method of claim 16 wherein the matrix is formed by dissolving the

polymer with the hydrophobic or amphiphilic compound together.

19. The method of claim 16 wherein the solvent is removed by evaporation or extraction.

20. A method for administering a therapeutic or prophylactic agent comprising administering the matrix of any of claims 1-15 to a patient.

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